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ABSTRACT

This booklet presents findings from a survey of teacher preparation colleges and universities covering the years between 1978 and 1988. Information from the survey is provided in tabular form as follows: (1) teachers prepared by type; (2) teachers prepared by institutional category; (3) teachers prepared; (4) employment status of teachers prepared; (5) teachers prepared by area of certification; (6) employment status of teachers by type of preparation; (7) employment status of teachers prepared by area of certification; and (8) outlook of teacher demand in Pennsylvania. (JD)

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Colleges and Universities

Teachers Prepared 1987-88

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Colleges and Universities

Teachers Prepared
1987-88

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Compiled by: Devki N. Khanna, Educational Statistics Associate

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Pennsylvania Department of Education
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HIGHLIGHTS

* During 1987-88, a total of 6,709 new teachers were prepared, consisting of 3,140 elementary, 1,818 secondary, 1,064 K-12, and 687 special education teachers.

* The 6,709 teachers represented a decline of 2.3 percent from the number prepared in 1986-87 and a decline of 65.5 percent from the peak year, 1971-72.

* The state universities produced 51.0 percent of the total teachers prepared during 1987-88. Private colleges and universities produced 32.0 percent; state-related commonwealth universities, 15.9 percent; and private state-aided; 1.1 percent.

* Of those responding to a follow-up survey, 65.2 percent were engaged in teaching and 14.6 percent were still seeking teaching positions as of November 1, 1988. Of those graduates placed in teaching positions, 73.1 percent were employed in Pennsylvania.

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OVERVIEW

After more than a decade of continuous decreases in the supply of teachers, the number of new teachers prepared with initial certification increased during 1986-87. However, the teachers prepared during 1987-88 decreased to 6,709, a decline of 2.3 percent from the preceding year.

The preparation of elementary teachers continued to show a strong growth, showing an increase of 19.9 percent in 1986-87 and 7.1 percent in 1987-88 over the respective preceding years. However, when compared to 1986-87, 1987-88 data showed 5.8 percent fewer secondary, 7.8 percent fewer K-12 and 19.2 percent fewer special education teachers prepared.

By institutional category, in 1987-88, new teachers consisted of 3,423 from state universities, 1,068 from state-related commonwealth universities, 75 from private state-aided institutions and 2,143 from private colleges and universities. This data, when compared to 1986-87, showed an increase of 4.7 percent for state universities, a decrease of 11.4 percent for state-related commonwealth universities, a decrease of 29.3 percent for private state-aided institutions and a decrease of 6.3 percent for private colleges and universities.

Of the six largest disciplines, elementary (general) showed an increase of 10.1 percent and social studies an increase of 24.3 percent when compared to 1986-87 graduates. The other four disciplines showed decreases. Mentally and physically handicapped declined 16.9 percent; health and physical education, 11.0 percent; early childhood, 7.5 percent; and mathematics, 6.7 percent.

A follow-up questionnaire regarding placement rate was returned by 61.3 percent of the new teachers prepared. Of those responding, placement by type of preparation showed that of all the teachers prepared within a

specific category, special education placed 69.7 percent in teaching positions; elementary, 68.5 percent; secondary, 60.6 percent; and K-12, 59.6 percent. Within these four categories of preparation, 16.2 percent of the elementary teachers were still seeking teaching positions; secondary, 15.7 percent; K-12, 13.4 percent; and special education, 6.6 percent.

Although the most recent year showed a slight decline in the number of teachers prepared from the previous year, it is generally felt an upward trend will return in the near future. A random survey of the major teacher preparing institutions in Pennsylvania indicated a significant increase in enrollments in the field of education. Especially in the fields of mathematics and sciences where some of the most critical needs are reported to exist, Pennsylvania Higher Education Assistance Agency scholarships, together with improved salaries, should further help to bring more teachers into these fields.

TABLE 1

TEACHERS PREPARED BY TYPE
1978-79 THROUGH 1987-88

	Total	Elementary	Secondary	K-12	Special Education
1978-79	9 505	3 380	1 904	2 705	1 516
1979-80	8 444	2 996	1 602	2 379	1 467
1980-81	7 396	2 570	1 476	1 977	1 373
1981-82	7 172	2 446	1 385	1 761	1 580
1982-83	6 414	2 322	1 189	1 569	1 334
1983-84	5 987	2 263	1 270	1 360	1 094
1984-85	5 961	2 384	1 372	1 290	915
1985-86	5 946	2 446	1 530	1 146	824
1986-87	6 866	2 933	1 929	1 154	850
1987-88	6 709	3 140	1 818	1 064	687

TABLE 2

TEACHERS PREPARED BY INSTITUTIONAL CATEGORY
1978-79 THROUGH 1987-88

	Total	State Universities	State-Related Commonwealth Universities	Private State-Aided Institutions	Private Colleges and Universities
1978-79	9 505	5 151	1 965	101	2 288
1979-80	8 444	4 716	1 682	78	1 968
1980-81	7 396	4 173	1 393	57	1 773
1981-82	7 172	3 659	1 542	60	1 911
1982-83	6 414	3 419	1 224	51	1 720
1983-84	5 987	3 255	1 013	56	1 663
1984-85	5 961	3 178	1 030	65	1 688
1985-86	5 946	3 015	913	86	1 932
1986-87	6 866	3 268	1 205	106	2 287
1987-88	6 709	3 423	1 068	75	2 143

FIGURE 1

TEACHERS PREPARED
1978-79 THROUGH 1987-88

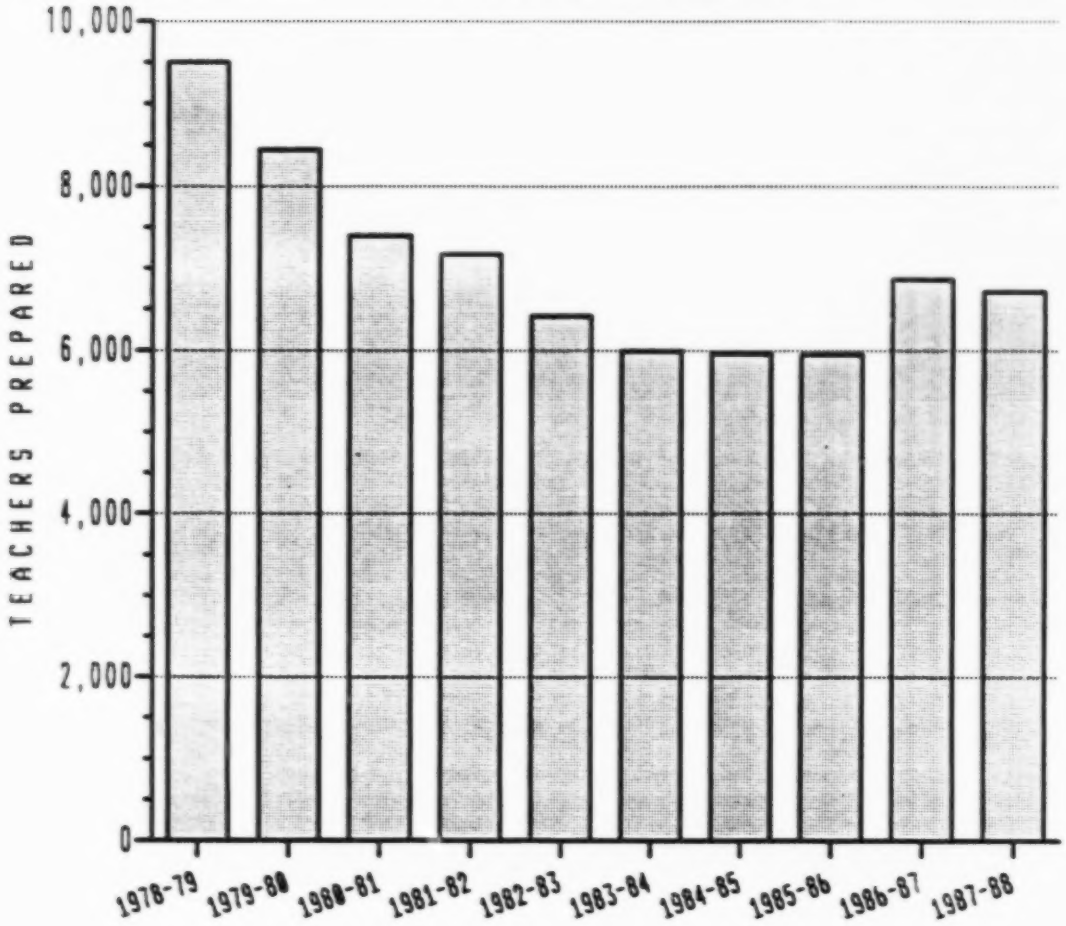

TABLE 3

EMPLOYMENT STATUS OF TEACHERS PREPARED
1978-79 THROUGH 1987-88

	Total	Teaching		Not Teaching		Unknown	
		Number	Percent	Number	Percent	Number	Percent
1978-79	9 505	4 021	42.3	2 658	28.0	2 826	29.7
1979-80	8 444	3 598	42.6	2 255	26.7	2 591	30.7
1980-81	7 396	3 003	40.6	2 073	28.0	2 320	31.4
1981-82	7 172	2 606	36.3	1 929	26.9	2 637	36.8
1982-83	6 414	2 447	38.2	1 774	27.7	2 193	34.2
1983-84	5 987	2 395	40.0	1 583	26.4	2 009	33.6
1984-85	5 961	2 530	42.4	1 286	21.6	2 145	36.0
1985-86	5 946	2 695	45.3	1 360	22.9	1 891	31.8
1986-87	6 866	2 771	40.4	1 368	19.9	2 727	39.7
1987-88	6 709	2 680	40.0	1 432	21.3	2 597	38.7

TABLE 4

TEACHERS PREPARED BY AREA OF CERTIFICATION
1978-79 THROUGH 1987-88

	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
TOTAL	9 505	8 444	7 396	7 172	6 414	5 987	5 961	5 946	6 866	6 709
ELEMENTARY	3 380	2 996	2 570	2 446	2 322	2 263	2 384	2 446	2 933	3 140
Elementary, General	2 896	2 371	2 020	1 927	1 823	1 838	1 852	2 021	2 429	2 674
Early Childhood	484	625	550	519	499	425	532	425	504	466
SECONDARY	1 904	1 602	1 476	1 385	1 189	1 270	1 372	1 530	1 929	1 818
Business Education	281	189	208	168	167	131	148	154	177	113
Communications	125	105	104	81	86	58	61	65	49	63
English	317	264	242	209	194	223	212	264	312	287
Mathematics	198	178	158	162	146	211	287	338	462	431
Physics and Mathematics	7	7	10	20	2	7	3	11	9	23
Sciences, Total	286	235	248	211	179	255	302	340	441	430
Biology	160	127	146	115	111	133	168	187	214	206
Chemistry	33	26	25	34	22	45	49	64	93	76
Earth and Space	29	30	34	32	17	34	28	27	30	56
General	50	40	30	27	26	31	38	29	75	59
Physics	14	12	13	3	3	12	19	33	29	33
Social Studies	569	489	369	370	283	284	262	294	342	425
Vocational Education	111	133	137	164	132	100	93	64	137	42
Other Secondary	10	2	0	0	0	1	4	0	0	4
K-12	2 705	2 379	1 977	1 761	1 569	1 360	1 290	1 146	1 154	1 064
Agriculture	22	45	35	45	27	17	17	12	16	16
Art	339	291	237	211	188	165	147	156	164	130
Foreign Languages, Total	232	184	150	143	101	112	103	104	116	118
French	69	49	44	44	34	32	34	32	30	34
German	37	26	21	20	11	8	11	18	19	18
Italian	6	5	6	4	2	2	0	0	0	1
Latin	3	7	5	7	4	3	8	9	5	7
Russian	2	3	0	0	1	2	0	0	1	0
Spanish	111	92	71	65	49	64	49	43	61	58
Other	4	2	3	3	0	1	1	2	0	0
Health	38	37	33	15	23	13	20	16	28	25
Health & Physical Education	894	841	697	620	597	473	412	354	338	301
Home Economics	192	149	103	95	62	39	48	26	21	17
Industrial Arts	264	236	162	135	161	147	145	109	89	76
Library Science	117	84	91	74	62	56	42	35	32	41
Music	607	512	469	423	348	335	259	272	272	282
Reading Specialist	0	0	0	0	0	3	105	62	78	58
SPECIAL EDUCATION	1 516	1 467	1 373	1 580	1 334	1 094	915	824	850	687
Hearing Impaired	26	34	39	43	33	97	27	29	30	22
Mentally/Physically Handicapped	1 106	1 095	1 030	1 205	1 011	830	697	603	652	542
Speech/Language Impaired	351	303	269	297	259	148	173	156	125	110
Visually Impaired	33	35	35	35	31	19	18	36	43	13

TABLE 5

EMPLOYMENT STATUS OF TEACHERS BY TYPE OF PREPARATION
1978-79 THROUGH 1987-88

	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
TOTAL	9 505	8 444	7 396	7 172	6 414	5 987	5 961	5 946	6 866	6 709
Teaching	4 021	3 598	3 003	2 606	2 447	2 395	2 530	2 695	2 771	2 680
In-State	2 951	2 595	2 160	1 904	1 744	1 670	1 788	1 912	2 074	1 959
Out-of-State	1 070	1 003	843	702	703	725	742	783	697	721
Not Teaching	2 658	2 255	2 073	1 929	1 774	1 583	1 286	1 360	1 368	1 432
Otherwise Gainfully Employed	1 079	898	870	637	691	559	468	447	480	442
Continuing Formal Study	476	484	395	441	390	305	283	290	269	274
Seeking Teaching Position	892	704	614	674	585	590	453	500	555	599
Seeking Non-Teaching Position	67	59	39	31	24	30	20	31	10	42
Other	144	110	155	146	84	99	62	92	54	75
Unknown	2 826	2 591	2 320	2 637	2 193	2 009	2 145	1 891	2 727	2 597
ELEMENTARY	3 388	2 996	2 570	2 446	2 322	2 263	2 384	2 446	2 933	3 140
Teaching	1 498	1 489	1 074	977	1 015	950	1 012	1 154	1 306	1 330
In-State	1 124	1 043	788	759	750	686	737	777	975	987
Out-of-State	366	366	286	218	265	264	275	377	331	343
Not Teaching	968	885	737	721	646	594	500	523	553	612
Otherwise Gainfully Employed	355	291	246	200	236	227	168	162	172	158
Continuing Formal Study	107	131	112	109	92	72	75	65	69	91
Seeking Teaching Position	421	323	295	344	275	241	229	255	278	315
Seeking Non-Teaching Position	25	20	12	14	9	9	9	7	3	20
Other	60	40	72	54	34	45	19	34	31	28
Unknown	922	782	759	748	661	719	872	769	1 074	1 198
SECONDARY	1 904	1 602	1 476	1 385	1 189	1 270	1 372	1 530	1 929	1 818
Teaching	806	614	533	473	433	501	591	662	664	635
In-State	625	476	440	378	332	373	441	526	529	486
Out-of-State	181	138	93	95	101	128	150	136	135	149
Not Teaching	541	463	403	350	298	311	295	354	364	413
Otherwise Gainfully Employed	243	189	209	140	125	108	130	120	135	158
Continuing Formal Study	103	97	69	78	65	58	48	52	62	59
Seeking Teaching Position	144	133	88	107	84	120	96	142	155	165
Seeking Non-Teaching Position	18	12	11	6	3	11	4	15	3	8
Other	33	32	26	19	21	14	17	25	9	23
Unknown	557	525	540	562	458	458	486	514	901	770
K-12	2 705	2 379	1 977	1 761	1 569	1 360	1 290	1 146	1 154	1 064
Teaching	900	812	662	533	451	439	465	452	400	397
In-State	645	581	464	365	314	287	297	331	288	282
Out-of-State	255	231	198	168	137	152	168	121	112	115
Not Teaching	851	716	642	517	493	438	304	282	255	269
Otherwise Gainfully Employed	397	322	310	208	224	165	126	110	139	94
Continuing Formal Study	155	159	123	112	98	79	68	74	37	64
Seeking Teaching Position	240	186	167	138	150	155	89	64	70	89
Seeking Non-Teaching Position	23	25	13	10	7	9	6	8	1	8
Other	36	24	29	49	14	30	15	26	8	14
Unknown	954	851	673	711	625	483	521	412	499	398
SPECIAL EDUCATION	1 516	1 467	1 373	1 580	1 334	1 094	915	824	850	687
Teaching	825	763	734	623	548	505	462	427	401	318
In-State	557	495	468	402	348	324	313	278	282	204
Out-of-State	268	268	266	221	200	181	149	149	119	114
Not Teaching	298	271	291	341	337	240	187	201	196	138
Otherwise Gainfully Employed	84	96	105	89	106	59	44	55	34	32
Continuing Formal Study	111	97	91	142	135	96	92	99	101	60
Seeking Teaching Position	87	62	64	85	76	74	39	39	52	30
Seeking Non-Teaching Position	1	2	3	1	5	1	1	1	3	6
Other	15	14	28	24	15	10	11	7	6	10
Unknown	393	433	348	616	449	349	266	196	253	231

TABLE 6

EMPLOYMENT STATUS OF TEACHERS PREPARED BY AREA OF CERTIFICATION
1987-88

	TEACHING			NOT TEACHING						
	All	In-State	Out-of-State	All	Otherwise Gainfully Employed	Continuing Formal Study	Seeking Teaching Position	Seeking Non-Teaching Position	Other	Unknown
TOTAL	**2 680**	**1 959**	**721**	**1 432**	**442**	**274**	**599**	**42**	**75**	**2 597**
ELEMENTARY	**1 330**	**987**	**343**	**612**	**158**	**91**	**315**	**20**	**28**	**1 198**
Elementary, General	1 106	814	292	537	138	88	278	15	26	1 031
Early Childhood	224	173	51	75	20	11	37	5	2	167
SECONDARY	**635**	**486**	**149**	**413**	**158**	**59**	**165**	**8**	**23**	**770**
Accounting	6	6	0	8	5	0	2	0	1	7
Biology	71	56	15	50	20	6	20	0	4	85
Chemistry	35	32	3	14	7	1	5	1	0	27
Communications	15	10	5	13	4	2	5	0	2	35
Cooperative Education	0	0	0	0	0	0	0	0	0	1
Data Processing	2	1	1	1	0	0	1	0	0	3
Earth and Space Science	15	12	3	13	4	2	7	0	0	28
English	120	88	32	58	14	12	29	1	2	109
Environmental Education	1	1	0	1	1	0	0	0	0	1
General Science	17	14	3	11	5	2	3	0	1	31
Marketing	2	1	1	2	1	0	1	0	0	5
Marketing & Distributive Educ.	2	1	1	5	3	0	1	1	0	7
Mathematics	174	136	38	80	33	10	30	3	4	177
Office Technology	3	2	1	3	0	0	0	0	3	11
Physics	13	11	2	7	4	2	1	0	0	13
Physics and Mathematics	11	9	2	0	0	0	0	0	0	12
Secretarial	19	14	5	11	7	2	1	0	1	16
Social Studies	125	88	37	136	50	20	59	2	5	164
Vocational Education	4	4	0	0	0	0	0	0	0	38
K-12	**397**	**282**	**115**	**269**	**94**	**64**	**89**	**8**	**14**	**398**
Agriculture	0	0	0	0	0	0	0	0	0	16
Art	58	45	13	35	11	4	18	0	2	37
Foreign Languages	52	41	11	27	5	9	10	1	2	39
Health	5	2	3	7	2	4	1	0	0	13
Health and Physical Education	55	34	21	83	37	15	24	3	4	163
Home Economics	12	11	1	3	1	0	1	1	0	2
Industrial Arts	44	30	14	29	14	9	4	0	2	3
Library Science	19	15	4	8	1	6	1	0	0	14
Music	124	81	43	72	23	16	28	2	3	86
Reading Specialist	28	23	5	5	0	1	2	1	1	25
SPECIAL EDUCATION	**318**	**204**	**114**	**138**	**32**	**60**	**30**	**6**	**10**	**231**
Hearing Impaired	9	7	2	3	1	1	1	0	0	10
Mentally/Physically Handicapped	272	176	96	80	22	20	23	6	9	190
Speech/Language Impaired	29	16	13	50	9	34	6	0	1	31
Visually Impaired	8	5	3	5	0	5	0	0	0	0

TABLE 7

OUTLOOK OF TEACHER DEMAND IN PENNSYLVANIA
1984-1995

Location/Occupation	Employment				Annual Average Job Openings 1984-1995		
	Estimated 1984	Projected 1995	Change 1984-1995 Number	Change 1984-1995 Percent	Due to Growth	Due to Labor Force Separation 1/	Annual Average Total
State Total							
Preschool & Elementary	60 695	67 834	7 139	11.8	649	1 491	2 140
Secondary	65 044	70 478	5 434	8.4	494	1 430	1 924
Allentown-Bethlehem MSA							
Preschool & Elementary	3 624	4 254	630	17.4	57	91	148
Secondary	3 167	3 551	384	12.1	35	71	106
Altoona MSA							
Preschool & Elementary	703	772	69	9.8	6	17	23
Secondary	728	757	29	4.0	3	16	19
Beaver County MSA							
Preschool & Elementary	709	781	72	10.2	7	17	24
Secondary	902	980	78	8.6	7	20	27
Erie MSA							
Preschool & Elementary	1 458	1 651	193	13.2	18	36	54
Secondary	1 580	1 748	168	10.6	15	35	50
Harrisburg-Lebanon-Carlisle MSA							
Preschool & Elementary	3 205	3 642	437	13.6	40	79	119
Secondary	3 597	4 008	411	11.4	37	80	117
Johnstown MSA							
Preschool & Elementary	1 239	1 393	154	12.4	14	31	45
Secondary	1 430	1 539	109	7.6	10	31	41
Lancaster MSA							
Preschool & Elementary	2 496	2 902	406	16.3	37	63	100
Secondary	2 628	2 953	325	12.4	30	59	89

TABLE 7

OUTLOOK OF TEACHER DEMAND IN PENNSYLVANIA--Concluded
1984-1995

Location/Occupation	Employment				Annual Average Job Openings 1984-1995		
	Estimated 1984	Projected 1995	Change 1984-1995 Number	Change 1984-1995 Percent	Due to Growth	Due to Labor Force Separation 1/	Annual Average Total
Philadelphia MSA							
Preschool & Elementary	20 797	22 846	2 049	9.9	187	506	693
Secondary	18 666	19 785	1 119	6.0	102	405	507
Pittsburgh MSA							
Preschool & Elementary	10 480	11 656	1 176	11.2	107	257	364
Secondary	11 927	13 093	1 166	9.8	106	264	370
Reading MSA							
Preschool & Elementary	1 431	1 601	170	11.9	15	35	50
Secondary	1 489	1 599	110	7.4	10	33	43
Scranton-Wilkes Barre MSA							
Preschool & Elementary	3 150	3 442	292	9.3	27	77	104
Secondary	3 778	3 957	179	4.7	16	82	98
Sharon MSA							
Preschool & Elementary	526	576	50	9.5	5	13	18
Secondary	847	925	78	9.2	7	19	26
State College MSA							
Preschool & Elementary	413	457	44	10.7	4	10	14
Secondary	556	571	15	2.7	1	12	13
Williamsport MSA							
Preschool & Elementary	480	495	15	3.1	1	11	12
Secondary	560	592	32	5.7	3	12	15
York MSA							
Preschool & Elementary	1 947	2 199	252	12.9	23	48	71
Secondary	2 005	2 181	176	8.8	16	44	60

1/ Labor force separations are due to death, retirement, disability, or withdrawl for personal reasons.

Note: State total includes areas not covered under listed MSA's.

Source: *Pennsylvania Occupational Trends and Outlook for Total Civilian Employment, 1984 and Projected 1995*, Pennsylvania Department of Labor and Industry

APPENDIX A

GLOSSARY

BUSINESS EDUCATION--Includes graduates certified by individual subject area (accounting, data processing, distributive education, secretarial, and office technology) with most or all people receiving multiple certificates. For multiple certificated students, institutions were instructed to categorize into the one most likely to represent the employment area.

ELEMENTARY--Includes persons prepared for the regular elementary certificate (K-6) or the early childhood certificate (N-3). Does not include those prepared for teaching in special education classes or those prepared for combined (K-12) certificates.

INSTRUCTIONAL I--The initial teaching certificate awarded to those who are qualified to enter the teaching profession. The certificate expires after the completion of six years of teaching experience.

K-12--Includes persons prepared for assignment at any grade level (K-12). Does not include those prepared for teaching in special education classes or those prepared for elementary (K-6) or secondary (7-12) certificates.

MSA--Refers to a county or group of contiguous counties forming a metropolitan area based on criteria developed by the U.S. Census Bureau.

SECONDARY--Includes persons prepared for assignments in junior and/or senior high school (7-12). Does not include those prepared for teaching in special education classes or those prepared for combined (K-12) certificates.

SPECIAL EDUCATION--Includes persons prepared with the minimum certification requirements (or professional requirements) for entering assignments to teach the mentally deficient, deaf or hard of hearing, visually handicapped, speech handicapped, orthopedically handicapped, gifted and talented, emotionally disturbed, educationally disadvantaged, severely underachieving, and other pupils with characteristics which require special training competencies.

VOCATIONAL EDUCATION--Includes persons who are certified to teach in areas of trade and industrial (occupational) education. Does not include industrial arts teachers (certificate code 6000).

APPENDIX B

SOURCES

1. Occupations of Persons Completing Preparation for an Instructional I Certificate in Pennsylvania (PDE-4042).

2. *Pennsylvania Occupational Trends and Outlook for Total Civilian Employment, 1984 and Projected 1995*, Pennsylvania Department of Labor and Industry.

APPENDIX C

NONRESPONDENTS
(data estimated)

Antioch University

Bryn Mawr College

Widener University